What is claimed is:

1. An optical pickup apparatus, comprising:

first, second and third light sources to emit light fluxes with wavelengths of $\lambda 1$, $\lambda 2$ ($\lambda 1 < \lambda 2$) and $\lambda 3$ ($\lambda 2 < \lambda 3$) respectively;

a light converging optical system including a first objective optical element and a second objective optical element, wherein the first objective optical element converges the light flux emitted from the first light source on a first information recording surface having a first information recording density D1 of the first optical information recording medium through a protective layer with a thickness t1 so as to record and/or reproduce information,

the second objective optical element converges the light flux emitted from the third light source on a third information recording surface having a third information recording density D3 (D1 > D3) of the third optical information recording medium through a protective layer with a thickness t3 (t1 < t3) so as to record and/or reproduce information, and

the first objective optical element or the second objective optical element converges the light flux emitted

from the second light source on a second information recording surface having a second information recording density D2 (D1 > D2 > D3) of the second optical information recording media through a protective layer with a thickness t2 (t2 < t3) so as to record and/or reproduce information;

a lens holder holding the first objective optical element and second objective element therein; and

a chromatic aberration correcting element which is arranged in an optical path where the light flux emitted by the first light source passes through, and corrects a chromatic aberration caused by a wavelength variation in a light flux emitted by the first light source.

2. The optical pickup apparatus of claim 1, wherein the light flux emitted by the first light source enters into the first objective optical element as a parallel light flux.

3. The optical pickup apparatus of claim 2, wherein the light flux emitted by the second light source enters into one of the first objective optical element and the second objective optical element as a parallel light flux.

4. The optical pickup apparatus of claim 3, wherein the light flux emitted by the second light source is incident into the first objective optical element as a parallel light flux.

5. The optical pickup apparatus of claim 4, wherein the light flux emitted by the third light source is incident into the second objective optical element as a parallel light flux.

6. The optical pickup apparatus of claim 3, wherein the light flux emitted by the second light source is incident into the second objective optical element as a parallel light flux.

7. The optical pickup apparatus of claim 6, wherein the light flux emitted by the third light source is incident into the second objective optical element as a parallel light flux.

8. The optical pickup apparatus of claim 6, wherein the light flux emitted by the third light source is incident into

the second objective optical element as a divergent light flux.

9. The optical pickup apparatus of claim 2, wherein the light flux emitted by the second light source is incident into the second objective optical element as a divergent light flux.

10. The optical pickup apparatus of claim 9, wherein the light flux emitted by the third light source is incident into the second objective optical element as a divergent light flux.

11. The optical pickup apparatus of claim 10, wherein a diverging angle in case that the light flux emitted by the second light source is incident into the second objective optical element is larger than a diverging angle in case that the light flux emitted by the third light source is incident into the second objective optical element.

12. The optical pickup apparatus of claim 1, wherein the chromatic aberration correcting element comprises at least

one of a diffractive structure, phase structure and multi-level structure on at least one of optical surfaces.

13. The optical pickup apparatus of claim 12, wherein the chromatic aberration correcting element comprises a diffractive structure on at least one of optical surfaces.

14. The optical pickup apparatus of claim 1, wherein the lens holder has a structure which is adapted to selectively insert one of the first objective optical element and second objective optical element into an optical path of the light converging optical system.

15. The optical pickup apparatus of claim 1, wherein the lens holder holds the first objective optical element and the second objective optical element not to change a relative displacement thereof.

16. The optical pickup apparatus of claim 1, wherein the lens holder holds the first objective optical element and the second objective optical element to change a relative displacement thereof.

17. The optical pickup apparatus of claim 14, wherein the lens holder rotates about an axis parallel to the optical axis of the light converging optical system.

18. The optical pickup apparatus of claim 14, wherein the lens holder is moved across the optical axis.

19. The optical pickup apparatus of claim 1, wherein the first, second and third light sources are arranged individually on different substrates.

20. The optical pickup apparatus of claim 1, wherein the first light source and the second light source are arranged on the same substrate.

21. The optical pickup apparatus of claim 20, wherein the second light source and the third light source are arranged on the same substrate.

22. The optical pickup apparatus of claim 1, wherein the first objective optical element is a single optical element.

23. The optical pickup apparatus of claim 22, wherein the second objective optical element is a single optical element.

24. The optical pickup apparatus of claim 1, wherein the first objective optical element is a plurality of optical elements.

25. The optical pickup apparatus of claim 24, wherein the second objective optical element is a plurality of optical elements.

26. The optical pickup apparatus of claim 1, wherein at least one of the first objective optical element and the second objective optical element is formed by a glass material.

27. The optical pickup apparatus of claim 1, wherein at least one of the first objective optical element and the second objective optical element is formed by a plastic material.

28. The optical pickup apparatus of claim 27 comprising a numerical aperture changing element to change a numerical

aperture of the objective optical element according to the type of recording media.

29. The optical pickup apparatus of claim 1 comprising spherical aberration correcting element to suppress a spherical aberration deterioration caused by a temperature fluctuation in the objective optical element.

30. The optical pickup apparatus of claim 1, wherein the first information recording medium satisfies the following formula:

$$0.09 \text{ mm} \le t1 \le 0.11 \text{ mm}$$

where t1 is a thickness of the protective layer of the first information recording medium.

31. The optical pickup apparatus of claim 30, wherein the light flux emitted from the first light source passes through the first objective optical element and converges on a fourth information recording surface having a fourth information recording density D4 ($D4 > D2$) of the fourth optical information recording media through a protective layer with a thickness t4 ($0.55 \text{ mm} \le t4 \le 0.65 \text{ mm}$) so as to record and/or reproduce information

32. The optical pickup apparatus of claim 1, wherein the first optical information recording medium satisfies the following formula:

$$0.55 \text{ mm} \leq t1 \leq 0.65 \text{ mm}$$

where t1 is a thickness of the protective layer of the first optical information recording medium.